We Finished Reengineering -- Now What?

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Arnold AFB TN

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2,977 People

63/27/14 Test Cells

$322M TOA

Customers
DoD, Industry, Federal, International

$7+ Billion Investment

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AEDC's BUSINESS PROCESS REENGINEERING PROGRAM

- Five year program: phased, systematic replacement of ILS, HR, and financial management processes

- Supported by integrated Commercial Off-The-Shelf (COTS) Software Enablers

- Completed and implemented entire program in FY2001

- **Still learning lessons ...**
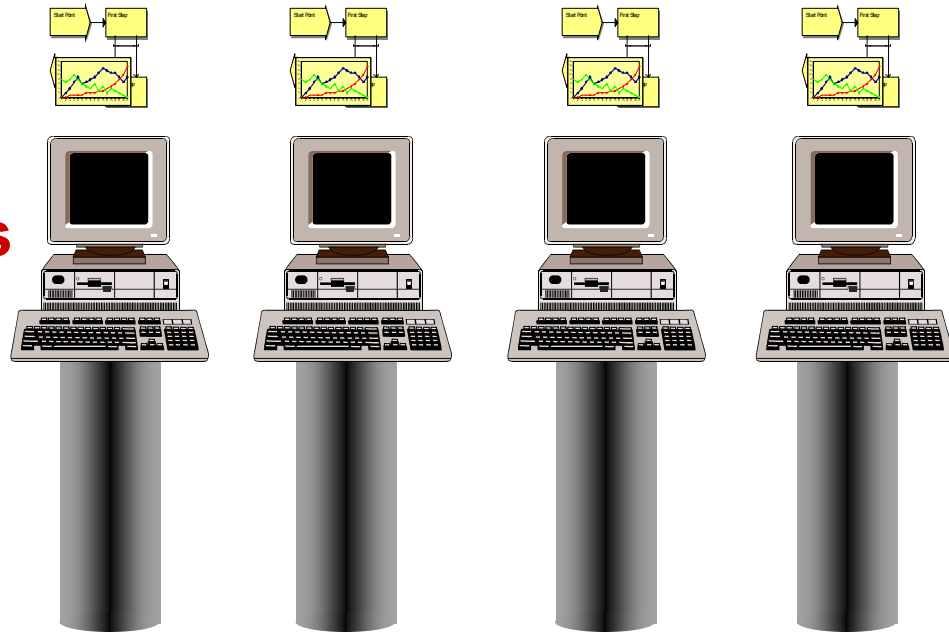
Before Reengineering

Functionally Stove Piped Enterprise

Independent Processes

Custom Applications

Independent Process/Apps. Decisions

Potential for Uninformed Decisions

Sub-Optimized Enterprise

REENGINEERING CHARTER
Process Focus

Vision - *Available, reliable, competitive, and affordable* Base and Test infrastructure that exceeds our customers needs

Objective - Implement an *efficient, non bureaucratic* logistics and business management system that enables the vision
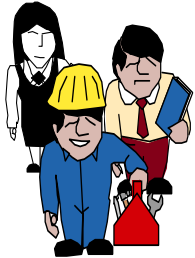
GOAL: The right information to the right person at the right time!

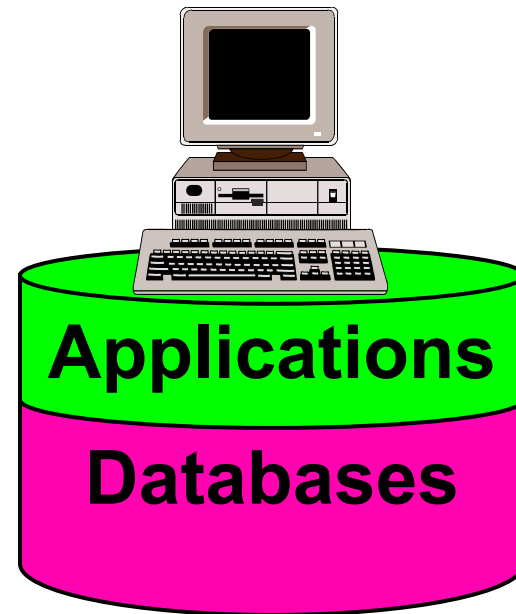# After Reengineering

Integrated Processes

Integrated COTS Applications = Enablers
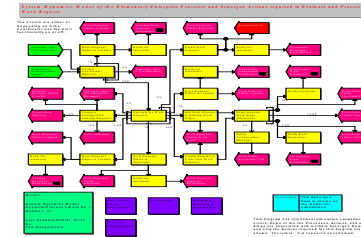
Integrated Documentation

Applications

Databases
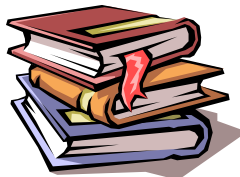
Integrated Enterprise Processes, Enablers, and Documentation

A SUCCESSFUL BPR PROGRAM GIVES YOU <u>THE TOOLS</u> TO …

- *Understand* **and thereby** *reduce costs*
- **Provide and sustain industry-proven, efficient business processes**
- **Provide fully integrated COTS/legacy systems (hardware and software) to capture** *essential transaction data*
- **Provide consistent, reliable** *data* **for process measurement and performance improvement**
- **Help you turn raw** *data* **into** *information* **and information into** *knowledge*

BUT -- BPR success doesn't make it happen …

FIRST LESSON:
UNDERSTAND WHAT YOU BOUGHT

THE GOAL WAS: the right information to the right person at the right time

THE GOAL WAS NOT: automatic cost savings from deployment of new IT enablers and changed processes

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Unless you have data, you are

just another person with an opinion.

SECOND LESSON: IT'S NOT THE ACQUISITION COST …

- Remember DSMC's PM Course?
  - Acquisition cost is only 20% of a weapons system life cycle cost
  - The O&M tail <u>can</u> be managed
- Your reengineered processes and enabling information technology tools are a single system of assets
- Life cycle asset management is critical to using the asset and gaining a return on your investment

LIFE CYCLE MANAGEMENT

- You thought this was an issue only with weapons systems? Think again.
- Improved processes, software enablers, and and technical architecture are assets
- Assets have owners – owners have responsibilities
- This system is as useless as an airplane at the factory
  - How will you deploy, employ, and support your system?
  - How will you manage upgrades and changes?

INTEGRATED SYSTEM

Processes ⟷ **Enablers**

Documentation
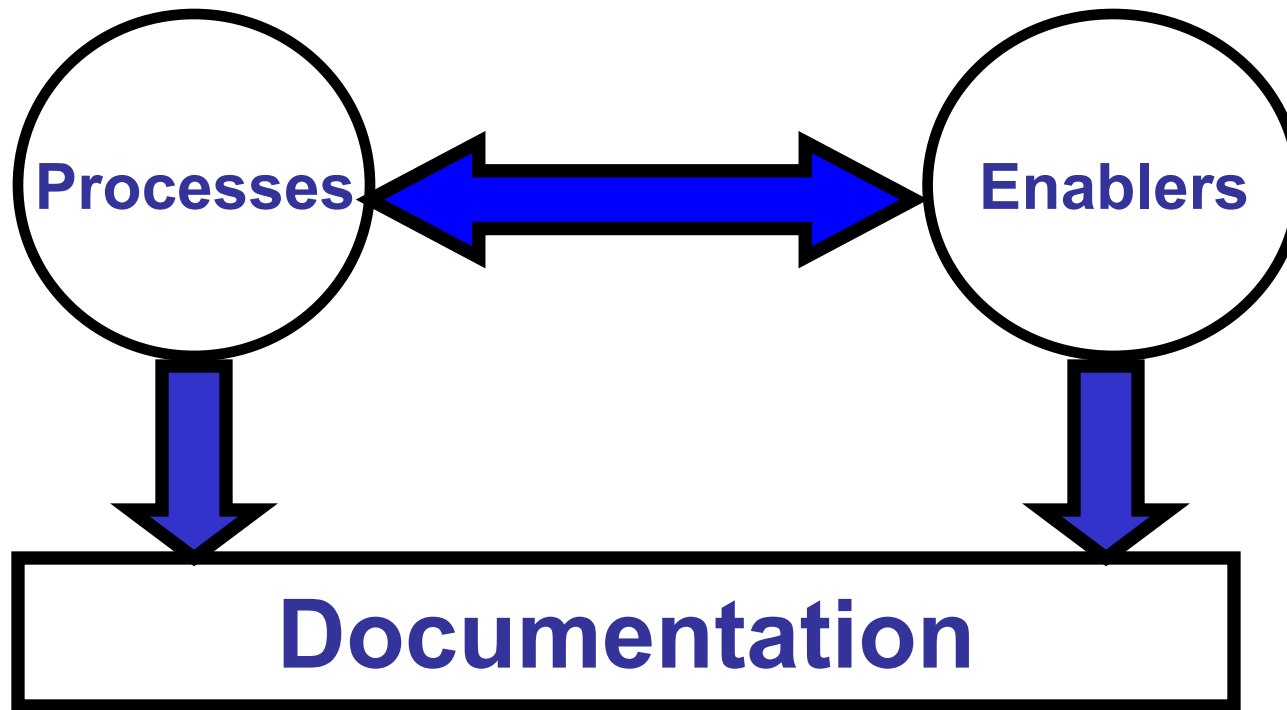
NO unilateral changes to any piece of the system.

AEDC'S SYSTEM: ENTERPRISE PROCESSES

➤ Current Enterprise Processes:

➤ EP1 – Workflow and System Management
➤ EP2 – Material, Property, and Services
➤ EP3 – Configuration Management and the Asset Hierarchy
➤ EP4 – Manage Work*
➤ EP5 – Manage Finances*

* Not Fully Developed; Lacking Definition, Documentation and Controls.

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System Dynamics Model of the Elementary Enterprise Processes and Synergen Actions required to Evaluate and Process a Work Request

The events are either or. Depending on if the Coordinator has the Alert functionality on or off.

Work Request Status Created

Incorrect Next Approver Notification

Work Request Status Rejected

Rejected Work

Synergen Alert 1 (Coordinator)

Work Request Status to Created

Notify the requester.

Reject Work Request

Notify the requester.

Bookmark Message Rejected Wor...

Coordinator Work Request Search

1 %

Correct Coordinator Decision

4 %

Synergen Alert 2 (Coordinator)

Notify the requester.

Description Inadequate Notification

Scheduled Work Notification

95 %

Change Request Status Created

Synergen Alert (Configuration Manager)

Work Request Status to Created

Work Request Status Created

Notify Scheduler

Work Order Status Approved Wai...

5 %

5 %

29 %

Documents Attached

10 %

Create a Configuration Change Request

0.5 %

Evaluate the Work Request

2 %

43 %

Add Work Request to Existing Work Order

Enter required Work Order Information

70.8 %

Work Order Status Planning

10 %

0.5 %

1 %

43 %

6 %

0.2 %

Work Request Status Created

Notes Attached

Work Request Status Work Order

Notify Configuration Manager

Notify Work Supervisor

Work Order Status Active

Notify the requester.

Work Request Status to Created

Work Request Status to Approved

Create New Work Order from Work Request

Work Order Notification CM

Emergency Work Notification

Change Request Required No...

Work Request Status Approved

Notify the requester.

Work Request Approval Notification

Model:

System Dynamics Model Evaluate/Process a Work Re ...
Number: 31

Last Updated:2/15/01 07:14
By
Tom Klingelhoets

Non Asset Work, Functions

Pool Buys

Training Materials Confusing

Planner Notification

Coordinators | This Synergen Role is shown on the model for simulations.

This diagram has intentional simulation validation errors. Some of the the Processes, Actions, and or Steps are associated with multiple Synergen Roles and only the Role(s) required for this diagram are shown. Therefore, it is resource constrained.

1951 2001 AEDC

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AEDC'S SYSTEM: ENABLERS

➢ Our enterprise software and associated interfaces are configured to enable us to perform our processes

➢ AEDC's current enablers are:

- ➢ Synergen Series
- ➢ PeopleSoft HRMS
- ➢ PeopleSoft Financials
- ➢ Primavera
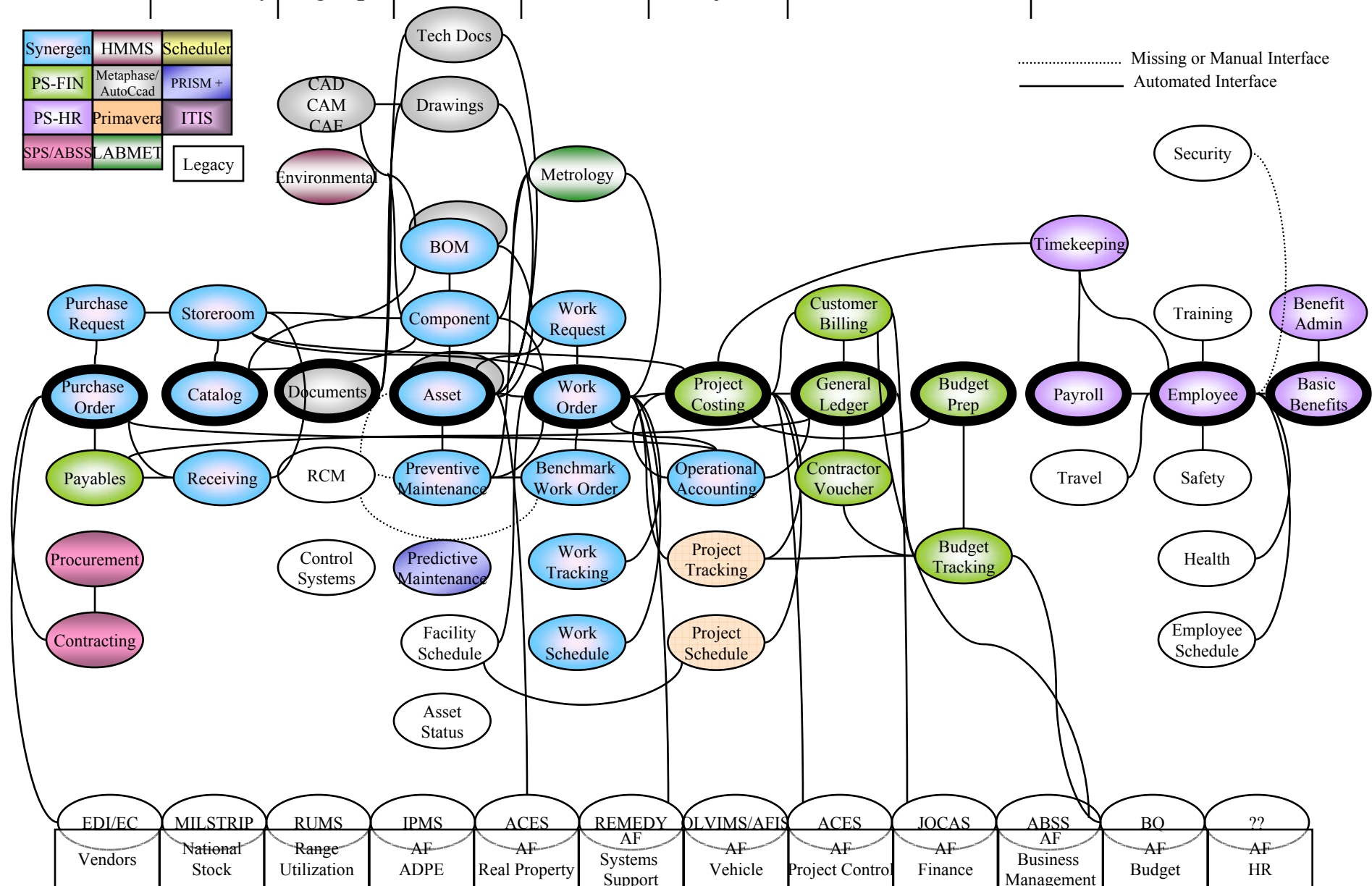- ➢ Metaphase
- ➢ OM2
- ➢ Matrix 1
- ➢ Mandated and legacy systems

AEDC ENABLER COMPLEXITY

Procurement | Inventory | Eng/Ops | AM/CM | Work | Project | Financial | Human Resources

Legend box:
- Synergen
- HMMS
- Scheduler
- PS-FIN
- Metaphase/AutoCcad
- PRISM +
- PS-HR
- Primavera
- ITIS
- SPS/ABSS
- LABMET
- Legacy

.... Missing or Manual Interface
———————— Automated Interface

Nodes:
Tech Docs, Drawings, Metrology, CAD CAM CAE, Environmental, BOM, Component, Work Request, Security, Timekeeping, Customer Billing, Training, Benefit Admin, Purchase Request, Storeroom, Purchase Order, Catalog, Documents, Asset, Work Order, Project Costing, General Ledger, Budget Prep, Payroll, Employee, Basic Benefits, Payables, Receiving, RCM, Preventive Maintenance, Benchmark Work Order, Operational Accounting, Contractor Voucher, Travel, Safety, Procurement, Control Systems, Predictive Maintenance, Work Tracking, Project Tracking, Budget Tracking, Health, Contracting, Facility Schedule, Work Schedule, Project Schedule, Employee Schedule, Asset Status

Bottom systems:

EDI/EC	MILSTRIP	RUMS	IPMS	ACES	REMEDY	DLVIMS/AFIS	ACES	JOCAS	ABSS	BO	??
Vendors	National Stock	Range Utilization	AF ADPE	AF Real Property	AF Systems Support	AF Vehicle	AF Project Control	AF Finance	AF Business Management	AF Budget	AF HR

AEDC'S SYSTEM - DOCUMENTATION

- ➤ **Process Configuration Documents**
  - ➤ User's Guide
  - ➤ Policies
  - ➤ Procedures
  - ➤ Participant Roles and Responsibilities
- ➤ **Enabler Configuration Xocuments**
  - ➤ Software Version
  - ➤ Interfaces
  - ➤ Software Configuration Code Tables ("what" we need to enter).
  - ➤ Business Rules ("who" enters it and "when").
  - ➤ Reports/Queries (to extract the information we require, the "end").
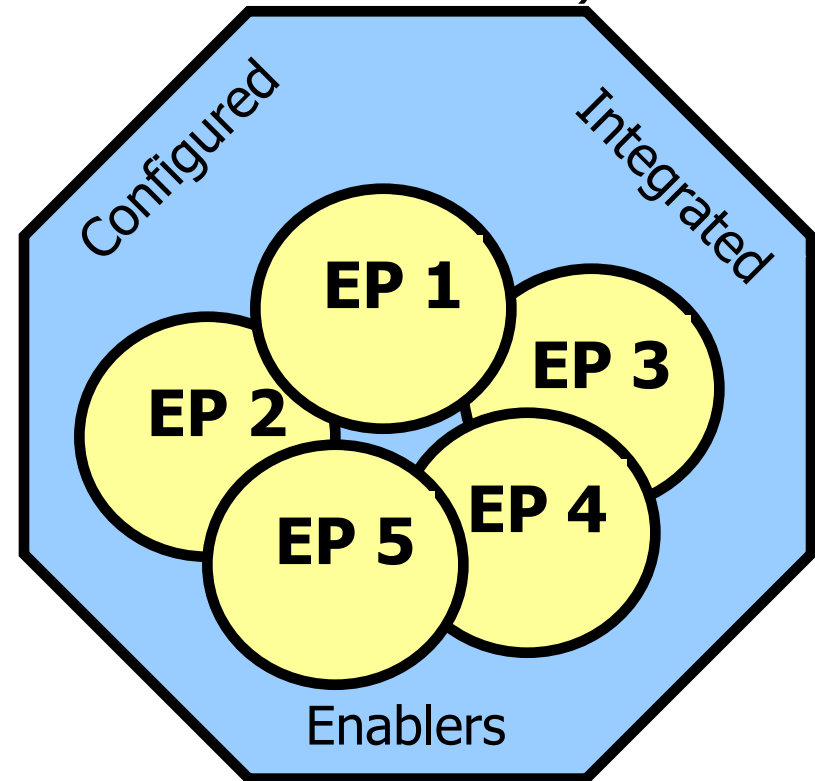- ➤ **Training Materials (for Processes and Software)**
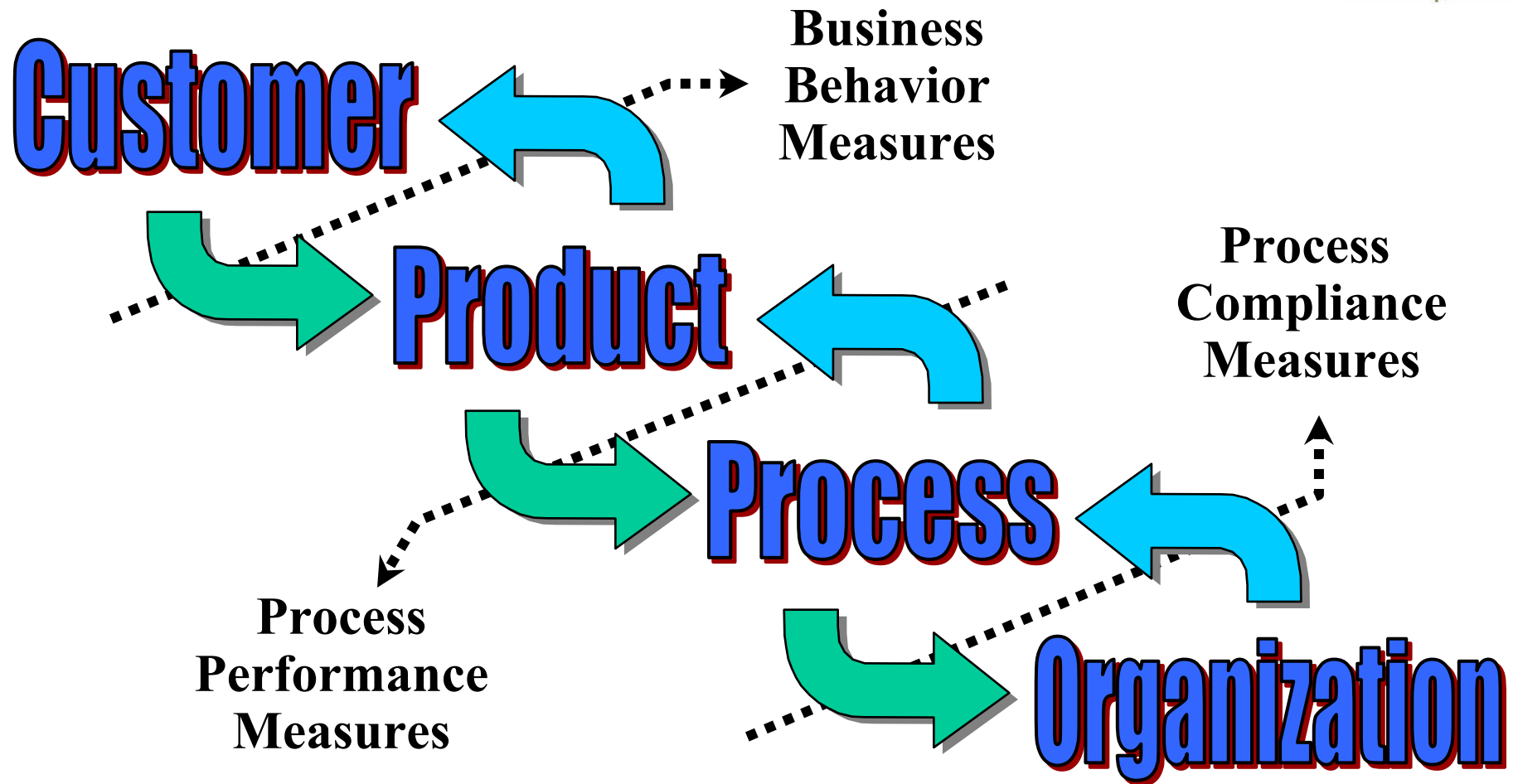
INTEGRATED SYSTEM O&M

❖Controls
- ❖Compliance Measures
- ❖Management Emphasis

❖Performance Indicators
- ❖Management Focus
- ❖Customer Feedback
- ❖Performance Measures

❖System Improvement
- ❖Management Direction
- ❖ROI
- ❖Utilize System

Enterprise System
(Processes, Software, Interfaces, and Documentation)

Configured

Integrated

EP 1
EP 2
EP 3
EP 4
EP 5

Enablers

WHAT DRIVES CHANGES?

Customer

Product

Process

Organization

Business Behavior Measures

Process Compliance Measures
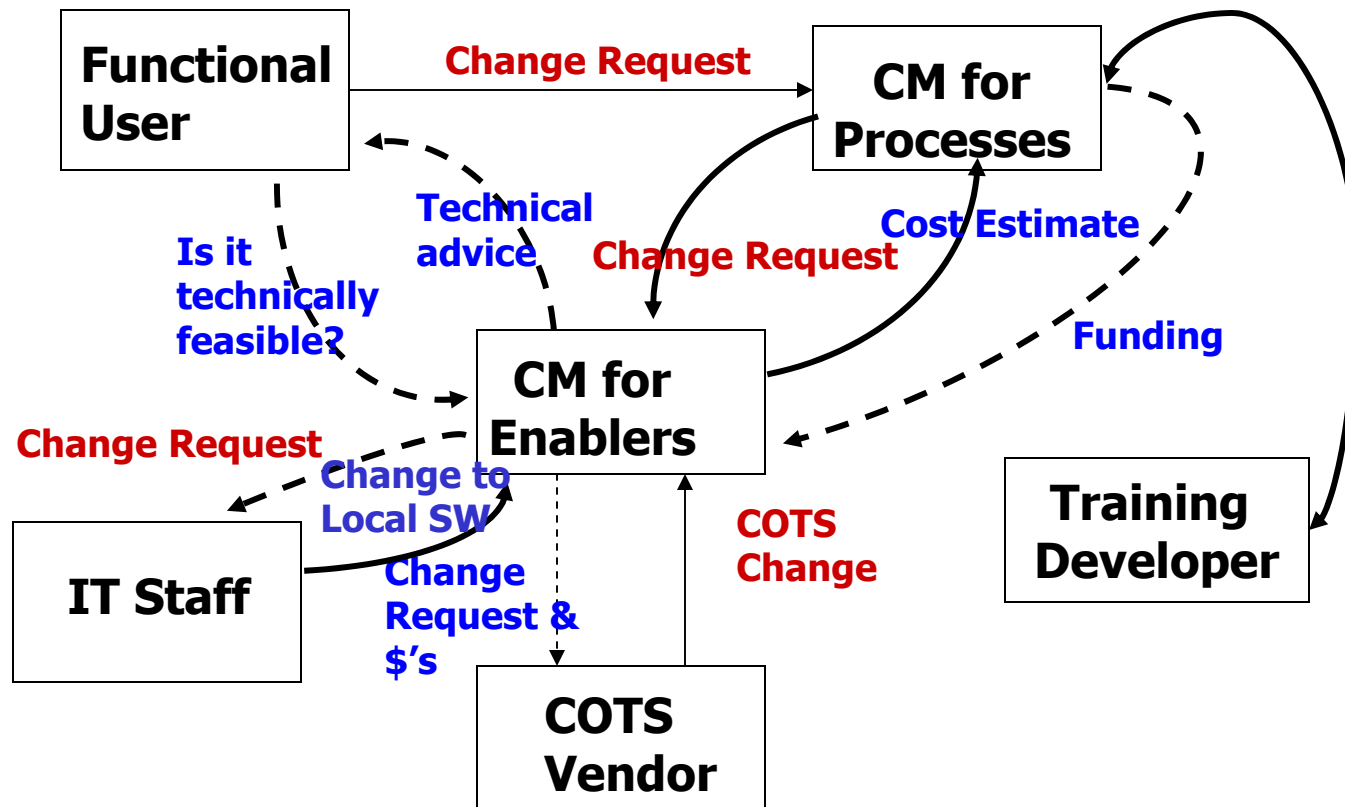
Process Performance Measures

INTEGRATED SYSTEM O&M

- No process is an island – evaluate all proposed changes for impact to the <u>system</u>
- Evaluate total costs and ROI <u>before</u> approval
- Deployment of new/upgraded COTS packages
  - Software-driven process improvements evaluated
  - Timing coordinated with other releases
  - Technical architecture impact assessed
  - Interfaces understood and designed
- Drives informed decisions vs. management desires

MANAGING CHANGES TO PROCESSES & SOFTWARE

Functional User → *Change Request* → **CM for Processes**

CM for Enablers

IT Staff

COTS Vendor

Training Developer

Is it technically feasible?

Technical advice

Change Request

Cost Estimate

Funding

Change Request

Change to Local SW

Change Request & $'s

COTS Change

MANAGING THE SYSTEM

- Model the system
  - Processes and enablers equally important
  - Integrated processes + integrated enablers = integrated system
  - We're using CASEwise™ Corporate Modeler – there are others
- Measure the system
  - Process compliance (are we using them?)
  - Process performance (how well are they working?)
  - How much will it cost/save to improve them?

WHAT WE'VE ACHIEVED:

- We implemented improved and integrated processes and enablers – as a system
- We implemented a way to manage the improved processes and their enablers
  - To understand them as a system, and make changes when the ROI makes sense
  - To reduce LCC of enabler maintenance
- We implemented a way to measure compliance with the new processes, as well as performance of the processes themselves
- So what's next?

THE BIG LESSON:

NO savings come from installing new software or hardware – only from implementing, using, and supporting improved processes and their enablers, to give you the management info you need to make cost-saving decisions

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"The end of the beginning …"